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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,831	10/07/2003	Kristina Vogt	Mo-6646D/LeA 34,283D	5388

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LANXESS CORPORATION
111 RIDC PARK WEST DRIVE
PITTSBURGH, PA 15275-1112

EXAMINER	
MARCHESCHI, MICHAEL A	

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/680,831	VOGT ET AL.	
	Examiner	Art Unit	
	Michael A. Marcheschi	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *RCE filed 9/20/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/023,174.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/20/05 has been entered.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The specification lacks antecedent basis for the term "**about**" as defined for the pH range, as define in claim 10 and for both sizès ranges as defined in claims 14-15. It is clear that the term "about" was defined in the original claims (parent claims), thus to overcome this objection, the term "about" should be inserted into the specification to clearly defined the pH and sizes consistent with the original claims.

PREVIOUS REJECTIONS:

(1) Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over either (1) EP 1077241 A2 or (2) Misra et al. for the same reasons set forth in the previous office actions which are incorporated herein by reference.

(2) Claim 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/78116 in view of Mirsa et al. and Ina et al. for the same reasons set forth in the previous office actions which are incorporated herein by reference.

(3) Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grover et al. alone or in view of Mirsa et al. and Ina et al. for the same reasons set forth in the previous office actions which are incorporated herein by reference. To further comment on this rejection, as previously applied, the primary reference teaches that any water soluble salt can be used and it is the examiners position that fluoride salts are implied to be within this disclosure because these are water soluble salts. The specific types of salts being obvious because Mirsa et al. teach that these fluoride salts are known salts to be used in polishing compositions for polishing silica and silicon nitride composites. In view of the primary reference teaching that **any** water soluble salt (i.e. reads on fluoride) can be used, it is the examiners position that one skilled in the art would have appreciated and been motivated to use any known water soluble salts that are conventionally known for polishing composition that are used to polish the same substrate.

(4) Claims 10, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Francis et al. in view of Mirsa et al. for the same reasons set forth in the previous office actions which are incorporated herein by reference.

NEW REJECTION:

The following rejection is an alternative rejection to rejection (1) above.

Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over (1) EP 1077241 A2 or (2) Misra et al. each one in view of WO 01/78116.

The EP reference and Misra et al. teach the claimed composition absent a literal pH of 2-6. It is clear that the pH of polishing slurries is dependent on the composition and substrate to be polished. The secondary reference clearly shows that a composition which contains the same components (abrasive and fluoride) and that is used for polishing the same substrate (silicon oxide/silicon nitride) is known to have **any** suitable pH. In view of this, one reading the secondary reference would have appreciated and found obvious that the pH of the primary reference(s) can be **any** suitable pH, thus broadly reading on the claimed pH absent criticality. This is apparent because the secondary reference teaches that any suitable pH can be used for abrasive/fluoride polishing composition that are used to polish silicon oxide/nitride composites.

Applicant's arguments filed 9/20/05 have been fully considered but they are not persuasive.

Applicants argue that EP 1077241 A2 and Misra et al. do not teach the claimed invention because one of ordinary skill in the art would not have been motivated to select the claimed pH values. In addition, it is argued that the references lack meaningful details since they do not define a pH. To the contrary, it is the examiners position that a composition can be defined according to the components and does not necessary need to be defined in terms of a pH, thus how does the absence of a pH lacks meaningful details. It is also argued that the reference teaches an alkaline pH (pH greater than 7). The examiner acknowledges this, but as is clear from the references, this pH is defined as a **preferable** limitation and as is well known "**A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments**" **See *In re Van Marter*, 144 USPQ 421.** Absent the preferred embodiments, the

references clearly suggest any pH values. It is the examiners position that if the references stated that the pH is preferably greater than 7, this implies that the pH can be less than 7 in a non preferred embodiment. In addition, the claims of the references fail to mention any pH value so how can the reference claims be limited to only the preferred pH values? In addition, the pH is dependent on the substrate to be polished and it is the examiners position that since the references teach an etching agent, the pH of the composition is pH effective to etch the substrate. Since the substrate to be polished is the same and the composition is the same, it is the examiners position that the pH needed to etch the substrate can be the same and applicants have not provided any comparative evidence showing that the references composition can not have the claimed pH. Finally, to comment on the unexpected advantages in examples 1-4, the results defined therein are **insufficient** to establish criticality or unexpected results because the evidence is not commensurate in scope with the claims. The examples use specific concentrations, have a specific pH values and use a **specific fluoride**, thus how can these examples provide criticality for the broad claimed values and fluoride component? In addition, applicants comparison is not between the claimed invention and the teachings of the reference. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356. **To establish unexpected results over a claimed range,** applicants should compare a sufficient number of tests both inside and outside (i.e. as well as the upper and lower limits) the claimed range to show the criticality of the claimed range. ***In re Hill 284 F.2d 955, 128 USPQ 197 (CCPA 1960).*** To comment on the motivation, as argued above, the motivation is that the references would broadly suggest to one skilled in the art that the compositions can have the claimed pH for the reasons defined above.

With respect to the rejection based on WO 01/78116 in view of Mirsa et al. and Ina et al., applicants argue the examples of the WO reference (examples teaches a higher pH) but, as is well known **"a reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments (i.e. examples)" See *In re Van Marter*, 144 USPQ 421.** The reference clearly states that the pH of the system can be **any** suitable pH and this broadly reads on the claimed pH. In the alternative and assuming any further arguendo, the reference defines a preferred pH of **about** 7 and as is well known "about" **permits some tolerance**, *In re Ayers*, 154 F 2d 182, 69 USPQ 109, thus about 6 broadly reads on about 7 and is therefore acidic. With respect to the combination, applicants have not argued the examiners reasons for combining the references. A mere statement that "the references do not contain some suggestion or incentive to modify the reference" is **not** a proper response to a combination rejection absent evidence to support this.

With respect to the rejection based on Grover et al. alone or in view of Mirsa et al. and Ina et al., applicants have not argued the examiners reasons for combining the references. A mere statement that "Grover, singly or in combination with Mirsa and/or Ina would not have been motivated to makes applicants' invention" is **not** a proper response to a combination rejection absent evidence to support this. It appears that the only argument is that Grover does not teach a fluoride salt or applying to a lower pH. With respect to the salt, this is obvious for the above reasons and with respect to the pH, Grover clearly teaches a pH within the claimed range.

With respect to the rejection based on Francis in view of Mirsa et al., applicants argue that Francis does not disclose the claimed invention. The examiner disagrees because Francis

teach a method comprising polishing a substrate containing silicon oxide and silicon nitride with a polishing slurry that comprises silica and a fluoride salt (all in the claimed amounts), wherein the slurry has a pH of **about** 7 and "about" permits some tolerance (see above), thus it can broadly be acidic. With respect to the colloidal silica limitation, applicants have not argued the obviousness of this limitation as defined in the previous office actions.

In view of the teachings as set forth above, it is still the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. ***In re Opprecht*** **12 USPQ 2d 1235, 1236 (CAFC 1989);** ***In re Bode*** **USPQ 12;** ***In re Lamberti*** **192 USPQ 278;** ***In re Bozek*** **163 USPQ 545, 549 (CCPA 1969);** ***In re Van Mater*** **144 USPQ 421;** ***In re Jacoby*** **135 USPQ 317;** ***In re LeGrice*** **133 USPQ 365;** ***In re Preda*** **159 USPQ 342 (CCPA 1968). In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See** ***In re Van Marter,*** **144 USPQ 421.**

A generic disclosure renders a claimed species prima facie obvious. ***Ex parte George*** **21 USPQ 2d 1057, 1060 (BPAI 1991);** ***In re Woodruff*** **16 USPQ 2d 1934;** ***Merk & Co. v. Biocraft Lab. Inc.*** **10 USPQ 2d 1843 (Fed. Cir. 1983);** ***In re Susi*** **169 USPQ 423 (CCPA 1971).**

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/05
MM

Michael A Marcheschi
Primary Examiner
Art Unit 1755